

§ 840.5

10 CFR Ch. III (1–1–06 Edition)

TOTAL PROJECTED RADIATION DOSES

Critical organ	Dose (rems)
Thyroid	30
Whole Body	20
Bone Marrow	20
Skin	60
Other organs or tissues	30

Exposures from the following types of sources of radiation shall be included:

(1) Radiation from sources external to the body;

(2) Radioactive material that may be taken into the body from its occurrence in air or water; and

(3) Radioactive material that may be taken into the body from its occurrence in food or on terrestrial surfaces.

(b) DOE finds that—

(1) Surface contamination of at least a total of any 100 square meters of offsite property has occurred as the result of a release of radioactive material from a production or utilization facility or device and such contamination is characterized by levels of radiation in excess of one of the values listed in column 1 or column 2 of the following table, or

(2) Surface contamination of any offsite property has occurred as the result of a release of radioactive material in the course of transportation and such contamination is characterized by levels of radiation in excess of one of the values listed in column 2 of the following table:

TOTAL SURFACE CONTAMINATION LEVELS¹

Type of emitter	Column 1—Offsite property ²	Column 2—Other offsite property
Alpha emission from transuranic isotopes.	3.5 microcuries per square meter.	0.35 microcuries per square meter.
Alpha emission from isotopes other than transuranic isotopes.	35 microcuries per square meter.	3.5 microcuries per square meter.
Beta or gamma emission.	40 millirads/hour 1 cm (measured through not more than 7 milligrams per square centimeter of total absorber).	4 millirads/hour 1 cm (measured through not more than 7 milligrams per square centimeter of total absorber).

¹The maximum levels (above background), observed or projected, 8 or more hours after initial deposition.

²Contiguous to site, owned or leased by person with whom an indemnity agreement is executed.

[49 FR 21473, May 21, 1984; 49 FR 24374, June 13, 1984]

§ 840.5 Criterion II—Substantial damages to persons offsite or property offsite.

(a) After DOE has determined that an event has satisfied Criterion I, DOE will determine that the event has resulted or will probably result in substantial damages to persons offsite or property offsite if any of the following findings are made:

(1) DOE finds that such event has resulted in the death or hospitalization, within 30 days of the event, of five or more people located offsite showing objective clinical evidence of physical injury from exposure to the radioactive, toxic, explosive, or other hazardous properties of source, special nuclear, or byproduct material; or

(2) DOE finds that \$2,500,000 or more of damage offsite has been or will probably be sustained by any one person, or \$5 million or more of such damage in the aggregate has been or will probably be sustained, as the result of such event; or

(3) DOE finds that \$5,000 or more of damage offsite has been or will probably be sustained by each of 50 or more persons, provided that \$1 million or more of such damage in the aggregate has been or will probably be sustained, as the result of such event.

(b) As used in paragraphs (a) (2) and (3) of this section “damage” shall be that arising out of or resulting from the radioactive, toxic, explosive, or other hazardous properties of source, special nuclear, or byproduct material, and shall be based upon estimates of one or more of the following:

(1) Total cost necessary to put affected property back into use.

(2) Loss of use of affected property.

(3) Value of affected property where not practical to restore to use.

(4) Financial loss resulting from protective actions appropriate to reduce or avoid exposure to radiation or to radioactive materials.